



February 14, 2012

Dear [REDACTED]:

SUBJECT: Analysis Results for Water Supply at [REDACTED] Humboldt Township,  
Marquette County, Michigan

The United States Environmental Protection Agency (EPA) collected a sample from your private water supply on November 1, 2011. Attached is a tabulation of the sample analysis results. The EPA sampled your water supply to assess if past activities at the nearby Humboldt Mine and Mill site had affected groundwater and individual water supplies in the area.

The concentrations of inorganic substances and metals detected in the water supply samples were below established federal and state drinking water standards and health concern levels, and were similar to groundwater quality generally found in Central Marquette County. While it is entirely normal within the region, it is noteworthy that both iron and manganese were detected at concentrations higher than secondary drinking water standards. The secondary standard for iron is 300 micrograms per liter (ug/l) and the secondary standard for manganese is 50 ug/l. Secondary standards are not health-risk standards. They are aesthetic water quality standards.

Arsenic was detected at 23.5 ug/l or slightly more than twice the health-risk advisory concentration of 10 ug/l. Some people exposed over a long period to elevated levels of arsenic in drinking water may experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Arsenic is a naturally occurring groundwater contaminant. There are many types of treatment systems easily installed and operated that can remove arsenic from residential water supplies.

The sample from your water supply contained iron at 5300 ug/l and manganese at 128 ug/l. Water containing iron or manganese exceeding secondary standards may cause staining of fixtures and laundry, and may have objectionable turbidity, color, and odor.

Before you make a decision to install treatment or seek a different water source, the EPA and the Michigan Department of Environmental Quality (DEQ) believe a second sample set is needed to confirm the presence and concentration of arsenic. The EPA will contact you regarding a second access agreement and sample collection date. Analysis of the follow-up samples will also be performed for some inorganic substances not previously researched and for some organic chemicals at a lower laboratory detection limit.

The EPA and the DEQ appreciate your cooperation in these investigations. If you have questions about the sampling efforts, please contact Nuria Muñiz at (312-886-4439). If you have questions about the analysis results, please contact Chuck Thomas, DEQ by phone at 906-346-8534 or by email at [thomasc3@michigan.gov](mailto:thomasc3@michigan.gov).

Sincerely,

Nuria Muñiz  
U.S. Environmental Protection Agency  
Superfund Division  
Region 5, Chicago IL.

Charles H. Thomas, P.G.  
Michigan Dept. of Environmental Quality  
Resource Management Division  
Upper Peninsula District Office

Enclosure

cc: Ms. Dana DeBruyn, DEQ  
Mr. Steve Harrington, DEQ  
Mr. Patrick L. Jacuzzo, Marquette County Health Dept.  
Mr. Don Deblasio, EPA  
Mr. Mark Johnson, ATSDR